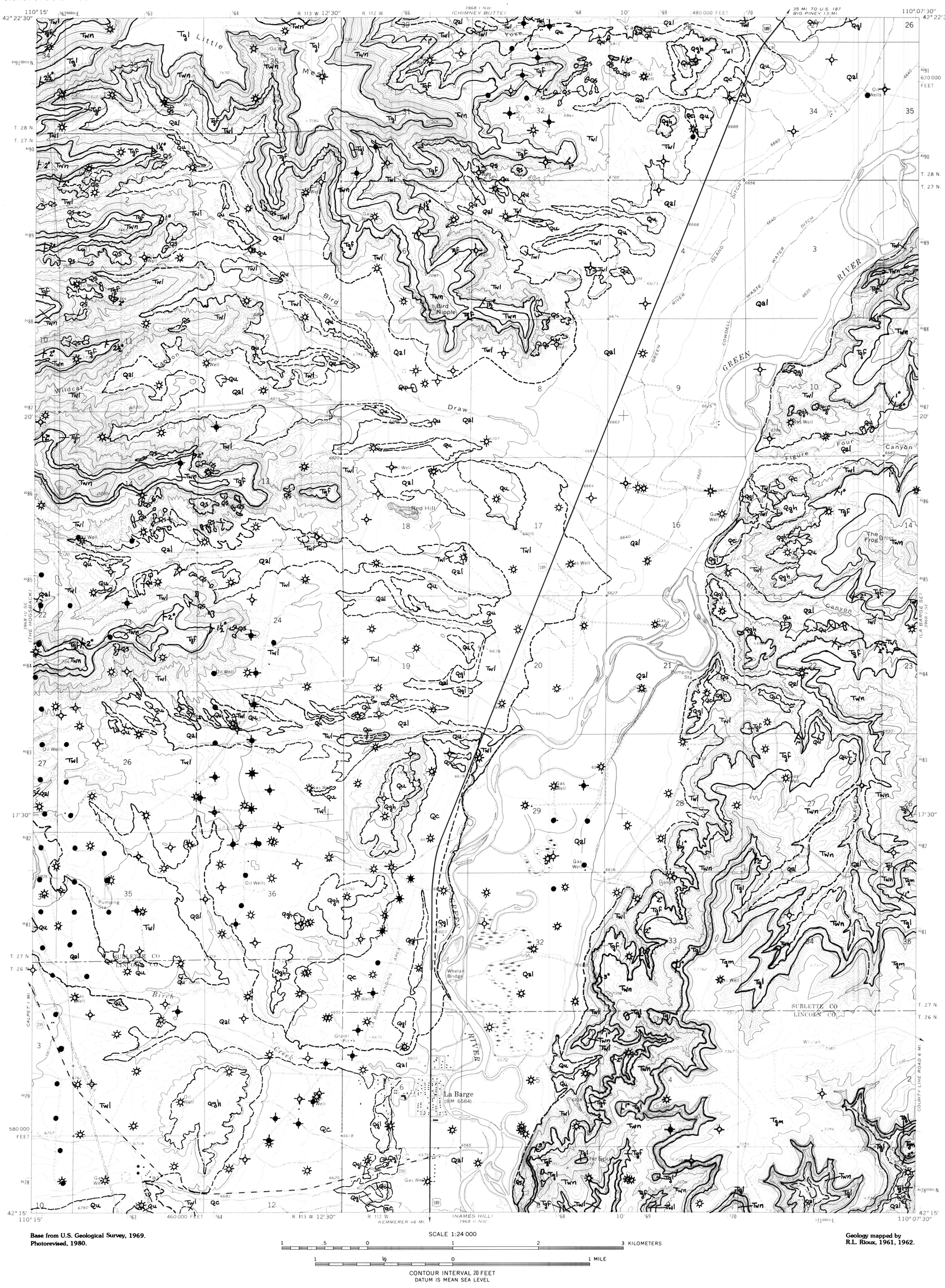
U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

OPEN-FILE REPORT 94–204



Base from U.S. Geological Survey, 1969.
Photorevised, 1980.

SCALE 1:24 000

1 .5 0 1 2 3 KILOMETERS

1 ½ 0 1 MILE

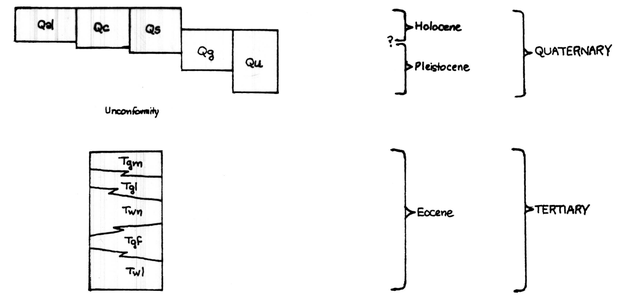
CONTOUR INTERVAL 20 FEET
DATUM IS MEAN SEA LEVEL

Geology mapped by
R.L. Rioux, 1961, 1962.

GEOLOGIC MAP OF THE LA BARGE QUADRANGLE, LINCOLN AND SUBLETTE COUNTIES, WYOMING

by
Robert L. Rioux
1994

CORRELATION OF MAP UNITS



DESCRIPTION OF MAP UNITS

Qal **ALLUVIUM (HOLOCENE)**—Unconsolidated gravel, sand, silt and clay, in stream valleys.

Qc **COLLUVIUM (HOLOCENE AND PLEISTOCENE ?)**—Unconsolidated slope wash and talus; mostly sand, silt and gravel derived from mass wasting of high, dissected terrace deposits along the Green River.

Qs **LANDSLIDE DEPOSITS (HOLOCENE AND PLEISTOCENE ?)**—Both large and small slide blocks and slump masses broken from adjacent cliffs during mass wasting and undercutting of resistant units.

Qgl
Qgh **TERRACE GRAVELS (HOLOCENE AND PLEISTOCENE)**—Gravel-capped remnants of terraces along the Green River; locally cemented; some slumping at higher elevations; two levels mapped.

Qgl, Lower terrace gravels; at elevations of 6600-6700 feet and about 35-100 feet above present stream level.

Qgh, Higher terrace gravels; at elevations of 6800-6850 feet and about 200-300 feet above present stream level.

Qu **UNDIFFERENTIATED SURFICIAL DEPOSITS (HOLOCENE AND PLEISTOCENE)**—Older alluvium, colluvium, alluvial fan, mudflow and boulder deposits along tributaries of the Green River; characterized by white-weathering blocks of algal limestone derived from units of the Green River Formation; commonly caps ridges of underlying Wasatch Formation; remnants found on highest terrace levels.

Tgm
Tgl **GREEN RIVER FORMATION, MIDDLE TONGUE (EOCENE)**—Two mappable parts:

Tgm, Upper part; sandstone light gray, weathers tan to brown, massive, cliff-forming at base; thin-bedded, tan clacareous sandstone, siltstone and marlstone in upper part; top not exposed in quadrangle

Tgl, Lower part; algal and ostracodal limestone; cliff-forming, weathers white, forms lowermost 50 feet; overlain by about 16 feet of bluish-white-weathering oil shale and minor marlstone in easternmost exposures, with average assays of 18 gallons per ton; section considerably thinner or missing west of Green River due to facies changes and replaced with algal limestones; uppermost beds, exposed in eastern part of quadrangle consist of light gray sandstone and marlstone with few thin oil shale beds; total thickness of lower part is about 110 feet.

Twn **WASATCH FORMATION, NEW FORK TONGUE (EOCENE)**—Sandstone, yellowish-brown to buff, weathers brown, massive, commonly crossbedded and lenticular, locally conglomeratic; interbedded with greenish-gray to bluish-green and gray mudstone; fossil turtle remains, land snail and mammal teeth found; about 230-260 feet thick.

Tgf **GREEN RIVER FORMATION, FONTENELLE TONGUE (EOCENE)**—Limestone, blue-gray to gray, platy, thinly laminated, dense, cliff-forming, weathers light-gray to white; interbedded with sandy and shaly limestone and some fine-grained sandstone and siltstone; fossil gastropods and ostracods found; thickness about 40-60 feet.

Twl **WASATCH FORMATION. LA BARGE MEMBER (EOCENE)**—Mostly red-banded to maroon with some purple, gray, green and yellow mudstones; interbedded with buff to gray and maroon siltstones and commonly lenticular sandstone and conglomeratic sandstone; fossil mammal jaw fragments and teeth, turtle bones and land snails, crocodile teeth and gar pike scales found; base not exposed in quadrangle.

EXPLANATION OF MAP SYMBOLS

CONTACT - Dashed where approximately located

STRIKE AND DIP OF BEDS

DRY HOLE - DRILLED FOR OIL OR GAS

OIL WELL

GAS WELL

OIL AND GAS WELL

ABANDONED OIL WELL

ABANDONED GAS WELL

ABANDONED OIL AND GAS WELL

Well data from Bureau of Land Management Records
Water, and gas and water input and converted wells are not shown

Multiply feet (ft) by 0.3048 to obtain meters (m)

SELECTED REFERENCES

Bertaganolli, A.J., Jr., 1941, Geology of southern part of La Barge region, Lincoln County, Wyoming: Am. Assoc. Petroleum Geologists Bull., v. 25, no. 9, p. 1729-1744.

Bradley, W.H., 1926, Shore phases of the Green River formation in northern Sweetwater County, Wyoming: U.S. Geol. Survey Prof. Paper 140-D, p. 121-131.

_____, 1964, Geology of Green River Formation and associated Eocene rocks in southwestern Wyoming and adjacent parts of Colorado and Utah: U.S. Geol. Survey Prof. Paper 496-A, p A1-A86.

Donavan, J.H., 1950, Intertonguing of Green River and Wasatch formations in part of Sublette and Lincoln Counties, Wyoming in Wyoming Geol. Assoc, Guidebook 5th Ann. Field Conf., p. 59-67.

Dunnewald, J.B., 1969, Big Piney La Barge Tertiary oil and gas field in Wyoming Geol. Assoc. Guidebook 21st Ann. Field Conf., p. 139-143.

Krueger, M.L., 1968, Occurrence of natural gas in Green River Basin, Wyoming in Natural Gases of North America, Am. Assoc. Petroleum Geologists Memoir 9, v. 1, p. 780-797.

Oriel, S.S., 1961, Tongues of the Wasatch and Green River formations, Fort Hill area, Wyoming in Short papers in the geologic and hydrologic sciences: U .S. Geol. Survey Prof. Paper 424-B. p. B151-B152.

_____, 1962, Main body of the Wasatch Formation near La Barge, Wyoming: Am. Assoc. Petroleum Geologists Bull. v. 46, no. 12, p. 2161-2173.

_____, 1969, Geology of the Fort Hill quadrangle, Lincoln County, Wyoming: U.S. Geol. Survey. Prof. Paper 594-M, p. 1-40.

Privrasky, N.C., 1963, Geology of the Big Piney area, Sublette County, Wyoming: U.S. Geol. Survey Oil and Gas Inv. Map OM-205.